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THESIS

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COAST GUARD

by

Jeffrey Bruce Stark

December 1985

Thesis Advisor:

J. McCaffrey

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Analysis of Budget Behavior for the U.S. Coast Guard

by

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Lieutenant, U. S. Coast Guard
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Submitted in partial fulfillment of the
requirements for the degree of

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ABSTRACT

The Coast Guard was transferred to the Department of Transportation from the Treasury Department in 1967. Since joining the Transportation Department, the service has assumed several new additional responsibilities. This thesis analyzes the annual Coast Guard budgets and the service's participation in the government budget process during this period of rapidly growing responsibilities. The period 1967-1984 is emphasized in the study. Analysis of budget data during the period 1950-1966 is also done for comparative purposes. The budgets are broken into major components and specific budget behavior is identified. The Coast Guard's budget behavior is then compared with budget behavior from other services and agencies. A review of Congressional testimony involving Coast Guard funding is also accomplished. Statements summarizing the Coast Guard budget's behavior and how the service performs in the government budget process are made.

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I. INTRODUCTION

A. OBJECTIVE

With the large budget deficits experienced by our government today, more emphasis is needed on the role of budgeting as a means of helping to control deficits. Funds in the public sector are becoming less available, creating a scramble for dollars by the different players in the government's budget game. Budgeting can play a key role in determining an agency's appropriation from year to year. The objective of this paper is to examine recent Coast Guard budgets, identify particular budget behavior and summarize how the Coast Guard has performed in the budget process in order to meet its responsibilities prescribed by law.

B. BACKGROUND ON THE COAST GUARD AND ITS BUDGET PROCESS

Up until 1967, the Coast Guard operated as an agency of the Department of the Treasury. In 1967, Public Law 89-670, the Department of Transportation Act, created the Department of Transportation in order to focus more government attention on the needs of the transportation industry in this country. The Coast Guard was placed in the Department of Transportation in 1967 and has remained there since.

Due to its unique responsibilities in areas such as search and rescue, aids to navigation, and the regulation of the merchant marine industry, the Coast Guard is considered

important to the country's transportation industry. Yet, while the Coast Guard functions as an agency of the Department of Transportation, it is also one of the military branches of the U.S. Government. The Coast Guard is considered to be the guardian of this country's shores. During a time of war, the Coast Guard is transferred to the U.S. Navy as a further extension of the country's naval forces. Consequently, not only must the service perform peacetime missions, it must also be prepared for armed conflict at any time.

Such diverse missions present unique budgeting opportunities for the Coast Guard. Not only must its annual budget satisfy the missions required from the Department of Transportation, but it must also reflect the interests and desires of the Department of Defense. Serving two masters often leads to ineffective budgeting, as one department may not see the Coast Guard's budgetary needs as clearly as the other.

The Coast Guard's annual budget process works as any other government agency's budget. The annual service budget is submitted to the Department of Transportation for review and then sent to the Office of Management and Budget(OMB). The Office of Management and Budget recommends how much the service budget should be, and both the House and Senate chambers of Congress hold hearings on the issues. As with other agencies, there is rarely agreement on funding levels

between the players. The final annual budget is usually agreed upon in the conference committees of Congress. Thus, Coast Guard's budget process is no different from most other government agencies.

Yet, often the level of funding received by the service is directly related to how the service performs in the budget process. By examining historical budgets and Congressional testimony, the Coast Guard's performance in the budget game can be determined. Ideas of what issues the service feels is important, what issues the departments involved and Congress feel are important, whether the service plays the budget game to its best ability and how the service performs in relation to other agencies can assist the service in recognizing its past weaknesses and strengths. Thus, improvements in future budget processes can be made to help the service obtain the appropriate level of funding for its future needs.

C. CURRENT LITERATURE ON BUDGET BEHAVIOR

1. Incremental Budget Behavior

Before an examination of past budgets can be done, it is necessary to briefly outline/review current budgetary literature. The most popular budget principle in public sector budgeting today is incrementalism. Incremental budget behavior describes budgets that increase/decrease only slightly from year to year. For this thesis,

incrementalism is defined as budget increases/decreases that do not exceed 15 percent. Incremental budgeting is noncomprehensive as little attention is paid to those programs already in place, but rather attention is focused on new programs or any significant increases/decreases in cost of last year's programs [Ref. 1]. Incrementalism begins when an agency builds a funding base and then gradually expands that base [Ref. 2]. Incrementalism promotes stability in budgeting and is biased against drastic change [Ref. 3]. Tucker [Ref. 4] points out that identifying incremental budgeting is a subjective analysis. What is incremental behavior to one agency's budget may not necessarily be incremental behavior to another agency. Thus, no incremental model is applicable to every situation. Each agency has a different budget model.

Budgeting in the public sector today tends to encourage the use of incremental budgeting [Ref. 5]. Incrementalism is supported by the following characteristics of government budgeting:

- Indexing and inflation
- Multi-year budgeting
- Continuing Resolutions
- Displaying budgets in an incremental manner

All of these characteristics of public sector budgeting assist in making incrementalism a more useful way to interpret budget behavior in most public sector agencies.

2. Programmatic Budget Behavior

Programmatic budget behavior is another popular way to describe budget performance. Program budgeting is the process of defining goals, analyzing alternatives to meet those goals, selecting the best alternative and budgeting for it [Ref. 6]. Program budgeting creates a more thorough study of agency programs and tends to look at programs on a larger scale. Some critics feel this concept is unworkable.

D. MAJOR ELEMENTS OF THE BUDGET PROCESS

1. Budgetary Politics

In addition to describing budget behavior as incremental or programmatic, it is also important to realize that budgeting is a political process. Obtaining funds in the public sector is not solely a function of how well defined an agency's programs are. Congress, OMB, the Department, and the agency are all players in the budget game. Not recognizing the political atmosphere inherent in the budget process is naive and dangerous to the budget administrator. Lee and Johnson [Ref. 7] feel that incrementalism's most important characteristic is its emphasis that budgetary decisions are political. Two opposing groups are bargaining towards a final budget. Sometimes in the process, political considerations overwhelm logic and the optimal use of funds.

In this political atmosphere, roles are played. Congress plays the protector of the purse. The House often opposes funding and the Senate is the court of appeals. [Ref. 8]. Under Presidential influence, the OMB assumes the role of guardian of the taxpayers money by reducing most budget requests. Agencies play the advocate role [Ref.9]. Lynch [Ref. 10] states that the entire budget process is best served when the players play the game well. Recognizing the players, their roles and their attitudes can be valuable to an agency's performance in the budget process.

2. External Environment

In addition, external factors play just as an important role in the budget process as the internal politics. Budget administrators must be knowledgeable about the atmosphere surrounding their agency. Presidential support of an agency can often do wonders for a smooth budget cycle [Ref. 11]. Knowing the mood of the people served by the agency can be an important factor in the budget process. If support is strong, rallying that support to assist in your budget request is an effective tool. Noticing mood swings of the players in the budget game is helpful for the budget administrator. If the mood swing is positive for the agency, the agency will want to capitalize on the swing as much as possible. Failure to do so might bring complaints and lost opportunities [Ref. 12]. Gaining

confidence within the political process is also important for the budget administrators. If one acts in an untrustworthy manner in submitting a budget (e.g. padding a budget), future budgets will come under greater scrutiny [Ref. 13]. All of these external items are important to the budget administrator if the budget process is to be used effectively.

3. Strategy

Employing strategies in the budget game is also important for a budget administrator. Several strategies for the budget process have evolved, yet the budget administrator must choose the best strategy for the particular agency involved. LeLoup and Moreland [Ref. 14] point out that perhaps the best strategy is to come in with as high a request as can be justified. If the requests cannot be justified, any confidence previously built up will be lost. Another strategy is to spend your funding quickly and then ask for a supplement to your budget. Another strategy to cut the most popular programs when an agency's funding is cut. This forces Congress to fund the programs or else they will incur the constituent's wrath [Ref. 15].

Assertiveness plays a key role in budgetary expansion. One must be willing to ask for large increases if such increases can be justified. One hypothesis is that the more assertive an agency is in asking for large increases, the bigger cuts it will face, yet overall the

agency's budget will increase [Ref. 16]. Such practice is popular in government today. Conversely, the more modest request an agency has, the less funds it stands to lose. Yet, the agency's final growth rate will be somewhat lower than the assertive agency. One problem with these strategies is that assertiveness is almost directly related to the external environment factor. Some agencies just cannot afford to be assertive, because the mood of the country and/or Congress won't permit it. One example of this would be the Department of Defense budgeting problems following the Vietnam conflict.

E. CONCLUSION

"Good" budgeting is difficult to define. It is a relative term with different meanings to different people. Yet, using these ideas of the how the budget process works, the players and their roles in the budget process, the external environment impact on budget requests and the agency strategies in submitting requests helps to get a better idea of how well an agency has performed in the budget process. The next five chapters intend to focus on each of these areas regarding the Coast Guard's annual budgets during the period 1967-1984.

II. COAST GUARD BUDGETS 1967-1984

In this chapter, annual Coast Guard budgets from 1967-1984 are analyzed. The budget data in this paper were obtained from the Budget of the United States series [Ref. 17]. Trust funds appropriated to the service are not included in the data. Computations changing then year dollar budgets into constant dollar budgets were accomplished to remove the effects of inflation on the data. GNP deflators of 1967=100 were used in the constant dollar calculations [Ref. 18]. The fiscal quarter July 1, 1976-September 30, 1976, when the Government changed the date of beginning its fiscal year, is not included in the data. For the most part, funding for this quarter was not significantly different from earlier periods.

The annual Coast Guard budget was broken up into the following major general fund accounts.

Operating Expenses (OE) includes all funds spent for the day-to-day operation and maintenance of the Coast Guard. These figures include such items as fuel, pay for those personnel assigned to tasks identified within OE, and supplies.

Acquisition, Construction and Improvement (AC&I) includes all funds used to upgrade the existing plant of the Coast Guard, including acquisition of ships and planes, construction of housing and facilities, improvements to

existing facilities and the pay for all service members associated with these programs.

Research and Development (R&D) includes all funds spent in the process of basic and applied research, development, testing, evaluation, maintenance of research facilities, and the pay for all members assigned to research and development programs.

Reserve Training (RT) involves all funds spent in the process of training Coast Guard reserves including the operation and maintenance of facilities, supplies, equipment and the pay for the active duty members involved with the reserve program.

A. ANNUAL BUDGETS IN THEN YEAR DOLLARS

1. Data

Appendix A lists the then year dollar budgets for the service and its major general fund accounts specified above. Appendix B lists the then year dollar changes from year to year. During the period 1967-1984, the annual Coast Guard budget increased from 500 million dollars in 1967 to 2,767 million dollars in 1984. The annual average increase in the service's budget was 126 million dollars per year. Such growth exemplifies the expanding role the service plays in today's government. Table 1 identifies the percentage changes from year to year in the annual service budget and the budgets of the major general fund accounts.

TABLE 1

ANNUAL PERCENTAGE CHANGE FOR CG AND ITS MAJOR
GENERAL FUNDS
(Based on then year dollars)

Year	CG	OE	AC&I	R&D	RT
1968	5.4	6.1	1.9	-	0.0
1969	3.2	6.9	-15.9	-	8.3
1970	7.4	12.1	-24.4	275.0	3.8
1971	13.2	7.2	38.2	-33.3	-3.7
1972	10.0	12.8	4.2	50.0	7.7
1973	12.8	8.9	25.8	20.0	10.7
1974	-2.2	6.6	-42.4	-22.2	-12.9
1975	16.3	13.0	42.1	21.4	7.4
1976	18.5	11.8	53.7	11.8	10.3
1977	18.3	13.6	42.2	0.0	12.5
1978	8.9	10.3	8.5	5.3	8.3
1979	8.6	6.9	10.5	0.0	5.1
1980	11.1	12.9	1.1	10.0	4.9
1981	18.4	19.9	16.9	13.6	14.0
1982	24.1	10.8	104.8	-28.0	4.1
1983	-2.8	8.2	-41.5	11.1	5.9
1984	12.7	5.4	67.3	15.0	1.9
Average	10.8	10.2	19.3	24.0	5.2
Median	11.1	10.3	10.5	11.1	5.9

2. Analysis

From Table 1, interesting trends emerge as follows.

The Research and Development account emerged as having the highest average percentage increase (24%) from year to year. However, such a figure is not indicative of true growth, because of large increases that appear in certain years.

The Operating Expense account suffered no budget cuts, yet their yearly average is only the third highest of the four general fund accounts.

The Operating Expense and Reserve Training accounts have no significant percentage increases/decreases of greater than 15% in funding from year to year. This fact suggests incremental budget behavior. In addition, the median percentage figure for both accounts is close to the average annual percentage increase supporting incremental budget behavior.

On the other hand, the AC&I and the R&D accounts have some significant percentage increases/decreases from year to year. This pattern suggests that these accounts seem to follow programmatic budget behavior.

B. ANNUAL BUDGETS IN CONSTANT DOLLARS

1. Data

Appendix C gives the Coast Guard budgets from 1967-1984 in constant 1967 dollars. Appendix D shows the

constant dollar changes from year to year. Changing the budget data from then year to constant dollars is necessary to remove the impact of inflation on the data. During the period 1967-1984, the Coast Guard budget in constant dollars went from 500 million to 389 million in 1984. Thus, even without the factor of inflation, the budget increased at a rate of 22 million dollars per year. Table 2 shows the percentage changes from year to year based on the constant dollar budgets.

TABLE 2

ANNUAL PERCENTAGE CHANGE FOR CG AND ITS MAJOR
GENERAL FUNDS
(Based on constant dollars; 1967=100)

Year	CG	OE	AC&I	R&D	RT
1968	1.2	2.1	-1.9	-	-4.2
1969	-2.2	1.5	-20.4	-	4.3
1970	1.4	5.9	-29.3	225.0	-4.2
1971	8.6	2.8	32.7	-38.5	-8.7
1972	6.4	9.0	1.3	50.0	4.8
1973	6.2	2.7	26.9	16.7	4.5
1974	-11.9	-4.1	-48.5	-35.7	-21.7
1975	6.6	3.5	31.3	22.2	0.0
1976	12.1	5.9	44.8	0.0	5.6
1977	11.1	6.7	34.0	-9.1	5.3
1978	1.1	2.4	0.8	0.0	0.0
1979	-2.3	-3.8	-0.8	-10.0	-5.0
1980	-2.2	-0.7	-10.8	0.0	-11.8

TABLE 2 (cont'd)

1981	7.3	8.6	6.0	0.0	5.9
1982	16.9	4.5	92.7	-33.3	0.0
1983	-5.7	4.9	-43.4	16.7	0.0
1984	8.0	1.1	60.4	0.0	0.0
Average	3.9	3.1	10.3	13.6	-1.2
Median	6.2	2.8	1.3	0.0	0.0

2. Analysis

Using constant dollar budget data, the Reserve Training account, on average, suffered a loss in its funding levels. Funding for Reserve Training did not keep up with inflation as it had 24 million dollars in 1967, but only had 18 million 1967 dollars in 1984.

The AC&I and R&D accounts have the highest annual average increases, yet these figures are distorted by some unusually large increases in some years. Such distortion is evident in the fact that their average percentage increase is far removed from their median percentage increase.

Operating Expenses suffered the fewest annual budget losses with only three down years. This supports the finding from Table 1 that Operating Expense budget seems to act incrementally.

Adjusting for constant dollars, the overall Coast Guard budget suffered five years of decline as compared to only two years of decline in the then year budget dollar data.

C. AVAILABILITY OF FUNDS CHART

1. Data

While Tables 1 and 2 show trends, further analysis can be accomplished. The constant dollar data in Table 2 is broken up into three groups [Ref. 19]. The first group is designated as "Abundant" years, describing the years that the Coast Guard achieved its highest increases in funding between 1967 and 1984. The second group is labeled "Mediocre" years and indicates years that annual funding levels increased only slightly in reference to other years between 1967 and 1984. Finally, the third category is designated "Lean" years, indicating those budget years in which the Coast Guard funding levels were decreased from the previous year's levels. Using these designations, an Availability of Funds Chart can be developed. Table 3 indicates the particular year of funding and the corresponding increases/decreases in the service and major general fund accounts.

TABLE 3

AVAILABILITY OF FUNDS CHART FOR THE COAST GUARD
1968-1984
(Based on constant 1967 dollars)

Abundant Years of Overall Percentage Increase:

Year	CG	OE	AC&I	R&D	RT
1982	16.9	4.5	92.7	-33.3	0.0
1976	12.1	5.9	44.8	0.0	5.6
1977	11.1	6.7	34.0	-9.1	5.3
1971	8.6	2.8	32.7	-38.5	-8.7
1984	8.0	1.1	60.4	0.0	0.0

TABLE 3 (cont'd)

Mediocre Years of Overall Percentage Increase:

Year	CG	OE	AC&I	R&D	RT
1981	7.3	8.6	6.0	0.0	5.9
1975	6.6	3.5	31.3	22.2	0.0
1972	6.4	9.0	1.3	50.0	4.8
1973	6.2	2.7	26.9	16.7	4.5
1970	1.4	5.9	-29.3	225.0	-4.2
1968	1.2	2.1	-1.9	--	-4.2
1978	1.1	2.4	0.8	0.0	0.0

Lean Years of Overall Percentage Decrease:

Year	CG	OE	AC&I	R&D	RT
1974	-11.9	-4.1	-48.5	-35.7	-21.7
1983	-5.7	4.9	-43.4	16.7	0.0
1979	-2.3	-3.8	-0.8	-10.0	-5.0
1980	-2.2	-0.7	-10.8	0.0	-11.8
1969	-2.2	1.5	-20.4	--	4.3

2. Analysis

From Table 3, the following trends are evident:

When funds are lean (i.e. the worst five years), the AC&I account seems to suffer most. Three of its four largest percentage decreases occurred during these five years.

When funds are abundant (i.e. the best five years), the AC&I account does very well. In this category, AC&I averaged a 53% annual increase in funds even though the overall Coast Guard budget in the same category only increased 11% per year. In dollar terms, the average increase in constant dollars in the AC&I account during the abundant years was 55 million dollars per year whereas the average increase in constant dollars in the overall Coast

Guard budget was 75 million dollars. Thus, the AC&I account received a major portion of the Coast Guard's funding increase during the "Abundant" years. Consequently, the fortunes of the AC&I account seem to be directly related to the level of funds received by the service.

The Operating Expense account usually does well whatever the funding levels. From Table 3, one can generalize that the Operating Expense account usually increases year to year. When funds are abundant, the Operating Expense budget increases, yet the percentage increase is less than the percentage increase for the service as a whole in that particular year. When funds are lean and the service's budget is reduced, the Operating Expense budget may be decreased, but it is usually reduced at a lower percentage level than the overall service budget. The Operating Expense budget seems to react very little to the overall funding levels. Its increases/decreases are relatively minor. Thus, its budget behavior can again be described as incremental.

The R&D budgets behave irregularly. It experiences some of its biggest cuts when funds are abundant. Funding for the R&D account seems to be best when the funding increases are designated as mediocre.

The Reserve Training account does well in abundant years and not very well in lean years. Three of the four largest decreases occur when funds are lean and two of the

three highest increases occur when funds are abundant. So, the fortunes of Reserve Training seem to be tied to the level of funding for the service.

D. PROGRAM PERCENTAGES

1. Data

Table 4 investigates how Coast Guard major general fund accounts behave in terms of their percentages of the total Coast Guard budget. The four major accounts of the annual budget identified in this chapter do not add up to 100 percent. The four funds will total to at least 85% of the annual budget to ensure that the data are representative of the service's budget. The budget years are again separated by the three descriptions; "Abundant" years, "Mediocre" years and "Lean" years. Table 4 identifies the percentages of the major fund accounts as they pertain to the respective years.

TABLE 4

ANALYSIS OF COAST GUARD GENERAL FUNDS ACCOUNTS AS
A PERCENTAGE OF OVERALL COAST GUARD BUDGET
(1968-1984)

Abundant Years of Overall Budget Increase:

Year	CG(\$)*	OE(%)	AC&I(%)	R&D(%)	RT(%)
1982	873	58.7	27.1	0.7	2.0
1976	649	66.7	15.0	1.7	2.9
1977	721	64.1	18.0	1.4	2.8
1971	545	67.4	14.2	1.5	3.9
1984	889	61.1	24.2	0.8	2.0
Average %		63.6	19.7	1.2	2.7
*in millions					

TABLE 4 (cont'd)

Mediocre Years of Overall Budget Increase:

Year	CG(\$)	OE(%)	AC&I(%)	R&D(%)	RT(%)
1981	747	65.7	16.4	1.2	2.4
1975	579	70.7	11.6	1.8	3.1
1972	580	69.2	13.5	2.1	3.9
1973	616	66.8	16.1	2.2	3.9
1970	502	71.2	11.6	2.6	4.6
1968	506	65.8	20.3	---	4.6
1978	729	64.9	18.0	1.4	2.7
Average %		67.8	15.4	1.9	3.6

Lean Years of Overall Budget Decrease:

Year	CG(\$)	OE(%)	AC&I(%)	R&D(%)	RT(%)
1974	543	72.8	9.5	1.7	3.4
1983	823	65.3	16.3	0.8	2.2
1979	712	63.9	18.3	1.3	2.7
1980	696	64.9	16.6	1.3	2.5
1969	495	68.2	16.5	0.7	4.3
Average %		67.0	15.4	1.2	3.1

2. Analysis

From Table 4, the following trends can be found:

The Reserve Training account has its highest percentage of the overall service budget during the "Mediocre" years of budget performance. Its lowest average percentage occurs in the "Abundant" years.

The Research and Development account has its highest average percentage of the total service budget during the "Mediocre" years of budget performance and the average percentage in the "Abundant" and "Lean" years is the same.

The AC&I account does best in the "Abundant" years and has the same average percentage of the budget during the "Mediocre" and "Lean" budget years.

The Operating Expense account has the lowest average percentage share of the budget during the "Abundant" years and the percentages in the other two categories are approximately equal.

These results are not surprising. Most of the Coast Guard missions surround the Operating Expense account. One may observe from Table 4 that if funding is cut for the year, Operating Expenses still receives its fair share and the difference in funding is taken out of the AC&I, RT and/or R&D accounts. Conversely, if overall funding is increased, the AC&I account receives the majority of the increase in funds. Thus, it appears that how the funding of the AC&I account goes, so goes the overall performance of the budget for that year.

E. CONCLUSION

From the evidence gathered in this chapter, it appears that the Operating Expense budget of the Coast Guard acts in an incremental manner. To a lesser extent, the Reserve Training budget acts incrementally although in constant dollar terms, funding for this account has not kept up with inflation during the period 1967-1984. The AC&I and R&D accounts seem to follow programmatic budget behavior in that

they have a small funding base to work with and their total funding seems directly associated with the overall funding level of the service.

III. COAST GUARD OPERATING EXPENSE BUDGET 1967-1984

This chapter examines the budget behavior of the major programs of the Operating Expense account. The Operating Expense budget comprises approximately 66% of the total Coast Guard budget. In Chapter II, the data indicated that the Operating Expense budget during the years 1967-1984 acted in an incremental manner. Do all program budgets in Operating Expenses act in an incremental manner?

In this chapter, the Operating Expense account is broken up into seven major programs. A listing of these programs, their abbreviations and a brief description of the programs follows.

Search and Rescue (SAR) includes all funds spent in the operation and maintenance of a 24 hour rescue coordination network consisting of boats, aircraft and cutters.

Aids to Navigation (ATON) includes all funds spent for the operation and maintenance of the global aids to navigation network.

Law Enforcement (LE) includes all funds spent for general and Federal law enforcement activities over the high seas and the waters of U.S. jurisdiction.

Military Readiness (MR) includes all funds spent for military preparedness activities including individual and unit training costs. This funding is necessary for the Coast Guard to meet its mission responsibilities during a time of war.

Marine Environmental Protection (MEP) includes all funds spent in the prevention of damage to the marine environment under Federal law.

Merchant Marine Safety (MMS) includes all funding spent to insure compliance with Federal statutes and regulations pertaining to the merchant marine industry including the review of ship plans and the physical inspection of merchant vessels.

General Support (GS) includes all administrative costs incurred to support the above programs such as District offices and Headquarter units.

A. DATA

In Chapter II, the Operating Expense budget was determined to act incrementally. Breaking down the Operating Expense account into its programs will give a further analysis of how program budgets within the Coast Guard behave. Table 5 provides a breakdown of Operating Expenses and its programs during the period 1967-1984. The total program dollars do not equal 100% of the dollars in the Operating Expense account, because some minor programs were not included in the data. Yet, the programs listed in Table 5 do amount to at least 85% of the total Operating Expense annual budget. Every effort was made to ensure that the programs consisted of the same funding responsibilities from year to year to ensure the comparability of the data.

TABLE 5

BREAKDOWN OF GENERAL FUND ACCOUNT-OPERATING EXPENSES
(1967-1984)
(in millions and then year dollars)

Year	OE	S&R	ATON	LE	MR	MEP	MMS	GS
1967	350	84	67	23	21	***	13	77
1968	347	87	69	24	31	***	15	82
1969	371	95	70	27	33	***	17	86
1970	416	112	88	35	37	***	21	73
1971	446	131	97	*	25	21	38	83
1972	503	151	101	*	32	25	39	77
1973	548	165	109	*	27	25	47	94
1974	584	187	118	*	24	37	42	112
1975	660	207	137	*	25	42	51	123
1976	738	216	132	*	20	46	55	132
1977	838	259	210	94	38	37	130	**
1978	924	254	244	143	44	62	121	**
1979	988	279	253	166	42	68	132	**
1980	1115	293	271	203	48	83	159	**
1981	1337	334	315	318	55	89	164	**
1982	1482	397	341	306	77	145	128	**
1983	1604	410	362	434	68	111	116	**
1984	1691	415	370	461	71	121	130	**

Legend: OE-Operating Expenses
S&R-Search and Rescue
ATON-Aids to Navigation
LE-Law Enforcement
MR-Military Readiness
MEP-Marine Environment Protection
MMS-Merchant Marine Safety
GS-General Administrative Support

TABLE 5 (cont'd)

*Law Enforcement was not specifically categorized during these time periods.

**General Support ceased to become a separate program for cost assignment purposes. In 1977, the General Support costs were shifted to other categories. A new program, Headquarters Administration was started in the mid-1980's, but it is not significant enough to be included in this table.

***Marine Environmental Protection was not specifically categorized until 1971.

B. ANALYSIS

From Table 5, the following trends can be identified.

The S&R and ATON programs seem most immune to budget cuts. Between the two programs, only one budget cut occurred in the 18 year period. This trend is probably due to the high visibility of these programs. They are the two best known programs of the service and the service is reluctant to reduce them. The S&R budget grew from 84 million in 1967 to 415 million in 1984. This is an average yearly increase of 18 million or 10.6%. Likewise, the ATON budget grew from 67 million in 1967 to 370 million in 1984 or an average increase of 17 million per year or 11%. No other programs in the Operating Expense account was so consistent over the entire period.

The Military Readiness program seems most vulnerable to budget cuts. It had six reductions in its budget during the 18 year period. One reason could be that the Coast Guard's responsibility for Military Readiness is not clear. It is

often difficult to measure the benefits of the program. Therefore, this program is reduced more often than the others.

The Law Enforcement, Merchant Marine Safety, Marine Environmental Protection programs all reflect significant funding increases during the period. These increases result from laws enacted by Congress directing the service to be responsible in these areas. For example, the Water Quality Improvement Act, PL 91-224, was passed in 1970. This Act is responsible for the Coast Guard setting up the Marine Environment Protection program to fund all responsibilities and duties under the Act.

The recent growth in the Law Enforcement program is directly associated with recent Administrations's call for increased efforts to prevent illegal drugs from entering the country. The Law Enforcement program grew from 94 million dollars in 1977 to 461 million dollars in 1984 or an average annual increase of 45 million dollars or 27%, by far the highest growth rate experienced by any of the programs.

C. CONCLUSION

While the Operating Expense budget behaves incrementally, the data presented in this chapter indicates that not all of the programs in the Operating Expense budget act incrementally. Certainly the two most consistent programs, S&R and ATON, behave incrementally with average

annual increases of 10.6% and 11% respectively. Yet, the other programs such as Law Enforcement and Marine Environmental Protection seem to behave erratically. In some years, their increases/decreases are insignificant, exhibiting incrementalism characteristics. However, in other years, their increases/decreases are significant. Political emphasis seem to play a large role in the funding swings in these programs. Such increases/decreases exhibit characteristics of program budgeting. Therefore, while the Operating Expense account acts incrementally, the same budget behavior is not evident for all of its components.

IV. DEPARTMENT OF TREASURY BUDGETS 1949-1966

Prior to becoming part of the newly formed Department of Transportation in 1967, the Coast Guard was one of the largest agencies in the Department of Treasury. This chapter examines the budget behavior of the major agencies of the Department of Treasury during the period 1949-1966.

The Department of the Treasury's budgets have been subdivided into four major agencies. The agencies and their abbreviations follow.

- Pub. Debt-Bureau of the Public Debt
- Customs-Bureau of Customs
- CG-Coast Guard
- IRS-Internal Revenue Service

The budget data for these agencies were obtained from the Budget of the United States (series)[Ref. 20]. The data do not include trust funds that may have been allocated to the agencies. The period 1949-1966 was specifically chosen so the number of years of data (18) from the Department of Treasury would equal the number of years of data taken from the Department of Transportation (1967-1984).

A. ANNUAL BUDGETS IN THEN YEAR DOLLARS

1. Data

Appendix E shows the Department of Treasury's and its agencies' budgets in then year dollars from 1949-1966. Appendix F shows the dollar changes for the department and

its agencies from budget year to budget year. Table 6 gives the percentage increase in funding based on then year dollars from budget year to budget year.

TABLE 6

ANNUAL PERCENTAGE CHANGES IN TREASURY BUDGETS
(Based on then year dollars)

Year	Treasury	Pub.Debt	Customs	CG	IRS
1950	3.9	8.0	-32.1	8.5	9.1
1951	0.0	-1.9	2.8	27.5	6.9
1952	4.2	4.2	10.8	15.9	10.0
1953	10.0	11.1	0.0	8.0	-1.1
1954	-1.9	-1.8	0.0	-9.8	0.0
1955	0.0	-0.1	0.0	-16.9	3.3
1956	8.1	6.5	7.3	6.2	7.5
1957	4.5	6.7	0.0	4.6	2.0
1958	5.2	5.0	13.6	9.8	10.4
1959	53.6	-0.2	6.0	7.6	5.3
1960	-20.4	20.9	1.9	7.1	2.2
1961	-3.9	-2.4	11.1	8.9	13.7
1962	2.3	1.8	5.0	6.0	8.9
1963	8.3	8.5	7.9	2.3	11.3
1964	8.2	7.8	7.4	19.7	9.6
1965	7.1	6.4	6.8	14.2	8.7
1966	2.3	5.9	7.7	13.4	5.2
Average	5.4	5.1	3.3	7.8	6.6
Median	4.2	5.9	6.0	8.0	7.5

2. Analysis

The Coast Guard experienced the highest average annual gain of all the agencies at 7.8%.

All of the agencies and the Department of Treasury showed little difference between its average percentage increase and its median percentage increase during the period. Such a statistic indicates relatively steady budget growth. Very few significant percentage changes occurred. Most of the budget behavior in this category can be described as incremental.

B. ANNUAL BUDGETS IN CONSTANT DOLLARS

1. Data

Appendix G shows the Department of Treasury and its major agencies' budgets from 1949-1966 in constant 1967 dollars. Appendix H shows the constant dollar changes from year to year for the respective agencies. Changing the budget data from then year to constant dollars is necessary to remove the impact of inflation on the data. GNP deflators (1967=100) were used in the calculations. During the period 1949-1966, the Coast Guard budget in constant 1967 dollars went from 197 million dollars in 1949 to 487 million in 1966, or an average of 16 million dollars per year. Table 7 below shows the percentage constant dollar changes from year to year.

TABLE 7

ANNUAL PERCENTAGE CHANGES IN DEPARTMENT OF TREASURY
(Based on constant dollars; 1967=100)

Year	Treasury	Pub.Debt	Customs	CG	IRS
1950	2.9	6.9	-32.4	7.6	8.8
1951	-7.4	-9.1	-4.0	18.4	-0.9
1952	2.0	2.0	8.3	13.1	7.5
1953	9.2	10.3	-1.9	7.4	-1.7
1954	-2.5	-2.3	0.0	-10.5	-0.6
1955	0.4	0.2	0.0	-16.5	3.9
1956	6.5	5.0	5.9	5.3	6.0
1957	0.9	3.1	-3.7	0.8	-1.6
1958	2.4	2.2	11.5	7.0	7.4
1959	52.3	-1.0	5.1	6.6	4.6
1960	-21.6	19.0	0.0	5.4	0.5
1961	-4.7	-3.4	9.8	7.9	12.7
1962	1.1	0.7	4.5	4.8	7.8
1963	7.0	7.2	5.7	1.2	9.8
1964	6.8	6.4	6.8	18.0	8.2
1965	5.3	4.6	5.1	12.2	6.9
1966	-0.5	2.9	3.6	10.4	2.2
Average	3.5	3.2	1.5	5.8	4.8
Median	2.0	2.9	4.5	7.0	6.0

2. Analysis

The Coast Guard had the highest annual percentage increase average of all the agencies during the period at 5.8%.

Using constant dollars, the Coast Guard experienced only two down years while the IRS, the Bureau of the Public Debt and the Customs Bureau all had four down years.

Significant increases/decreases in funding are conspicuously absent in this table. Such minor increases/decreases provide evidence of incremental budget behavior for the Department and its agencies.

C. AVAILABILITY OF FUNDS CHART

1. Data

While Tables 6 and 7 indicate incremental budget behavior, further analysis can be accomplished. Using nomenclature from Chapter II, we can break up the constant dollar data in Table 7 into three groups, the "Abundant" years, the "Mediocre" years, and the "Lean" years. Using these designations, an Availability of Funds Chart for the Treasury Department can be developed. Table 8 indicates the particular year of funding and the corresponding increases/decreases in funding for the Department of Treasury and its major agencies.

TABLE 8

AVAILABILITY OF FUNDS CHART FOR TREASURY DEPARTMENT
1950-1966
Constant 1967 dollars

Abundant Years of Percentage Increase:

Year	Treasury	Pub. Debt	Customs	CG	IRS
1959*	52.3	-1.0	5.1	6.6	4.6
1953	9.2	10.3	-1.9	7.4	-1.7
1963	7.0	7.2	5.7	1.2	9.8
1964	6.8	6.4	6.8	18.0	8.2
1956	6.5	5.0	5.9	5.3	6.0

Mediocre Years of Percentage Increase/Decrease:

Year	Treasury	Pub. Debt	Customs	CG	IRS
1965	5.3	4.6	5.1	12.2	6.9
1950	2.9	6.9	-32.4	7.6	8.8
1958	2.4	2.2	11.5	7.0	7.4
1952	2.0	2.0	8.3	13.1	7.5
1962	1.1	0.7	4.5	4.8	7.8
1957	0.9	3.1	-3.7	0.8	-1.6
1955	0.4	0.2	0.0	-16.5	3.9

Lean Years of Percentage Increase/Decrease:

Year	Treasury	Pub. Debt	Customs	CG	IRS
1960	-21.6	19.0	0.0	5.4	0.5
1951	-7.4	-9.1	-4.0	18.4	-0.9
1961	-4.7	-3.4	9.8	7.9	12.7
1954	-2.5	-2.3	0.0	-10.5	-0.6
1966	-0.5	2.9	3.6	10.4	2.2

*Treasury Department made a one time payment of 4.6 billion to the International Monetary Fund during this year.

2. Analysis

The best Coast Guard percentage gain came in 1951, the year the Department of Treasury experienced its second worst percentage loss. In fact, two of the five highest percentage increases in the Coast Guard budget came during

the "Lean" years. This suggests that perhaps Coast Guard funding was somewhat immune to Department of Treasury budget cuts.

The Bureau of the Public Debt, the Bureau of Customs and the Internal Revenue Service budgets all seem to generally suffer during the "Lean" years.

All of the agencies seemed to do reasonably well in the "Abundant" and "Mediocre" years.

It appears that all of the agencies' budgets seem to generally run in tandem with the overall Treasury budget except for the Coast Guard. The Coast Guard did exceedingly well in four of the five years in the "Lean" years category. The Coast Guard also did well in the "Mediocre" years category.

D. CONCLUSION

In Tables 6, 7 and 8, evidence suggests incremental budget behavior for the Department of Treasury and its major agencies during the period 1949-1966. Research accomplished by Richard Fenno supports these findings. Fenno claims that the Department of Treasury was a favored agency during the period 1947-1962. His data from the Treasury Department included the annual budgets of the Bureau of Customs, the Bureau of Narcotics, the Bureau of Public Debt, the Bureau of the Mint, the Internal Revenue Service and the Secret Service. The Coast Guard was not included in his study, yet

it seems reasonable to assume the findings from his analysis of these six agencies apply also to the Coast Guard.

[Ref. 21]

Fenno found that initial budget requests from the agencies studied were cut 71% of the time. Despite these cuts, Fenno found that 66% of the resulting final agency budgets were greater than the previous year's budget while 27% of the annual budgets decreased. Such a high percentage of increases seems to indicate a good political atmosphere between the Department and Congress.

Consequently, another perspective of Coast Guard budgeting is found in this chapter. The data suggests that while in the Department of Treasury, the Coast Guard budget acted incrementally during the period 1949-1966. There is some evidence suggesting that the Coast Guard budget was immune to any cuts incurred by the Department. With Fenno's study, the favorable political atmosphere is cited as a factor to the growing budgets within the Department. The Coast Guard budget was not only impacted by its own missions and responsibilities, but also by the favorable relationship of the Department of Treasury with Congress during the period.

V. DEPARTMENT OF TRANSPORTATION BUDGETS 1966-1984

In this chapter, annual Department of Transportation budgets from 1966-1984 are analyzed. Evidence from Chapter IV showed that the Coast Guard budget acted incrementally while assigned to the Department of Treasury. Did the same incremental budget behavior continue when the Coast Guard was transferred to the Transportation Department? Components of the Coast Guard budget during this period have already been analyzed in Chapter II. Yet, further analysis of the overall Coast Guard budget as compared to other Department of Transportation agencies will provide another perspective of Coast Guard budgeting.

The Department of Transportation's budgets were subdivided into the following major agencies:

- DOT-Department of Transportation
- FHA-Federal Highway Administration
- FRA-Federal Railroad Administration
- UMTA-Urban Mass Transit Authority
- FAA-Federal Aviation Administration
- CG-Coast Guard

The budget data were obtained from the Budget of the United States series [Ref. 22]. Trust funds appropriated to the department and its agencies are not included in the data. Computations changing the then year dollar budgets into constant dollar budgets were accomplished to remove the effects of inflation on the data. GNP deflators (1967=100) were used in the constant dollar calculations. The fiscal

quarter July 1, 1976-September 30, 1976, when the Government changed the beginning date of its fiscal year, is not included in the data. For the most part, funding for this quarter was not significantly different from earlier periods.

A. ANNUAL BUDGETS IN THEN YEAR DOLLARS

1. Data

Appendix I lists the then year dollar budgets for the Department of Transportation and its major agencies. Appendix J lists the then year dollar changes in the agencies' budgets from year to year. Table 9 identifies the percentage changes from year to year in the Department of Transportation's and its major agencies' budgets.

TABLE 9

ANNUAL PERCENTAGE CHANGES IN DOT BUDGETS (based on then year dollars)

Year	DOT	FHA	FRA	UMTA	FAA	CG
1967	23.4	169.0	-	-	14.4	5.7
1968	-8.9	-33.6	-27.2	-	-7.7	5.4
1969	9.3	-10.4	18.8	-	-1.5	3.2
1970	24.9	-68.0	-10.5	5.4	33.5	7.4
1971	132.2	36.2	300.0	1623.8	24.8	13.2
1972	-60.8	36.7	213.0	-100.0	-40.1	10.0
1973	12.3	-72.2	-45.0	-	40.9	12.3
1974	140.0	83.0	86.3	-	4.3	-2.2

TABLE 9 (cont'd)

1975	117.3	491.0	123.4	186.8	10.0	16.3
1976	-59.8	-87.1	123.4	-89.2	10.9	18.5
1977	-0.7	781.0	0.4	-52.1	-5.1	18.3
1978	11.3	-38.1	36.5	6.3	8.8	8.9
1979	39.8	-48.0	8.4	388.6	7.0	8.6
1980	5.0	0.0	-3.4	5.7	6.6	11.1
1981	64.7	-59.7	139.0	86.5	-0.9	18.4
1982	-19.4	800.0	-47.7	-24.2	-18.3	24.1
1983	-6.1	32.6	-43.9	4.7	-4.7	-2.8
1984	15.3	-94.9	108.7	-18.4	80.4	12.7
Average	24.4	107.0	57.6	155.7	9.1	10.5
Median	11.8	-5.2	18.8	5.4	6.8	10.6

2. Analysis

The high averages of percentage increases for the FHA, FRA and UMTA agencies are distorted, because of the high increases found in certain years in the data. The high increases/decreases can be explained by the fact that these agencies were new and had little or no funding base. Therefore, much of their budgeting in the early years of the Department was sporadic. Funding arrived when Congress determined the extent of the responsibilities and functions the agencies would perform. Given the wide fluctuations in funding for these agencies, it appears that their budget behavior can be described as programmatic.

The Coast Guard's average percentage increase is closest to its median percentage increase, giving evidence that the Coast Guard does not experience wide fluctuations in budgets. Such evidence indicates incremental budget behavior.

The Coast Guard experienced only two decreases in annual funding. Next was the UMTA who suffered five down years in thirteen years of data. The Department suffered six down years in eighteen years of data.

B. ANNUAL BUDGETS IN CONSTANT DOLLARS

1. Data

Appendix K gives the Department of Transportation's and its major agencies' budgets from 1966-1984 in constant 1967 dollars. Appendix L shows the constant dollar changes from year to year. Changing the budget data from then year to constant dollars is necessary to remove the impact of inflation on the data. During the period 1966-1984, the Department of Transportation budget in constant dollars went from 1521 million dollars in 1966 to 3643 million dollars in 1984. Thus, even without the factor of inflation, the Department of Transportation budget increased at an average rate of 118 million constant dollars per year. Table 10 shows the percentage changes from year to year based on the constant dollar budgets.

TABLE 10

ANNUAL PERCENTAGE CHANGES IN DOT BUDGETS
(in constant dollars and 1967=100)

Year	DOT	FHA	FRA	UMTA	FAA	CG
1967	20.0	162.0	-	-	11.2	2.7
1968	-12.6	-36.2	-31.8	-	-11.4	1.2
1969	3.8	-14.9	13.3	-	-6.5	-2.2
1970	17.9	-69.7	-11.8	-0.7	25.9	1.4
1971	122.7	30.0	273.3	1555.0	19.6	8.6
1972	-62.0	32.3	203.6	-100.0	-42.0	6.4
1973	5.7	-73.2	-48.2	-	32.8	6.2
1974	116.0	60.9	68.2	-	-6.1	-11.9
1975	99.1	445.9	104.1	162.8	0.8	6.7
1976	-62.0	-87.6	111.2	-89.8	4.9	12.1
1977	-6.7	716.0	-5.6	-54.9	-10.8	11.1
1978	3.3	-42.6	26.7	-1.2	1.1	1.1
1979	25.6	-53.0	-2.6	338.7	-3.9	-2.3
1980	-7.5	-12.7	-14.9	-6.9	-6.1	-2.2
1981	49.2	-62.5	116.8	68.9	-10.1	7.3
1982	-24.1	727.8	-50.7	-28.6	-23.0	16.9
1983	-9.1	28.9	-45.6	1.5	-7.7	-5.7
1984	10.6	-95.3	100.0	-21.8	73.1	8.0
Average	16.1	92.0	47.4	140.2	2.3	3.6
Median	4.5	-13.8	13.3	-1.2	-5.0	4.5

2. Analysis

The average percentage increase in the DOT is greatly influenced by the significant annual increases in the FHA, FRA and UMTA agencies. The large increases/decreases incurred by these agencies again indicate programmatic budget behavior.

The FAA budget also experienced wide fluctuations of increases/decreases in funding indicating programmatic budget behavior even though its average percentage increase is fairly close to its median percentage increase.

The Coast Guard budget offers the best example of incremental budgeting in this table due to its mild fluctuations and the small difference between its average and median percentage increase.

In constant dollar terms, the Coast Guard suffered five down years as compared to the next lowest total of seven for the Department. This is in sharp contrast to the two down years the Coast Guard experienced in the then year dollar budget table. Thus, the Coast Guard's funding increased in three years (1969, 1979, 1980), but that increase was not enough to offset the inflation rate for that particular year.

C. AVAILABILITY OF FUNDS CHART

1. Data

In Table 10, the data are subdivided into three groups: the "Abundant" years, the "Mediocre" years, and the "Lean" years. Using these designations, an Availability of Funds Chart can be developed. Table 11 indicates the particular year of funding and the percentage increases/decreases for the Department of Transportation and its major agencies.

TABLE 11

AVAILABILITY OF FUNDS CHART FOR DOT
1967-1984
Constant 1967 dollars

Abundant Years of Percentage Increase:

Year	DOT	FHA	FRA	UMTA	FAA	CG
1971	122.7	30.0	273.3	1555.0	19.6	8.6
1974	116.0	60.9	68.2	--	-6.1	-11.9
1975	99.1	445.9	104.1	162.8	0.8	6.7
1981	49.2	-62.5	116.8	68.9	-10.1	7.3
1979	25.6	-53.0	-2.6	338.7	-3.9	-2.3

Mediocre Years of Percentage Increase:

Year	DOT	FHA	FRA	UMTA	FAA	CG
1967	20.0	162.0	--	--	11.2	2.7
1970	17.9	-69.7	-11.8	-0.7	25.9	1.4
1984	10.6	-95.3	100.0	-21.8	73.1	8.0
1973	5.7	-73.2	-48.2	--	32.8	6.2
1969	3.8	-14.9	13.3	--	-6.5	-2.2
1978	3.3	-42.6	26.7	-1.2	1.1	1.1
1977	-6.7	716.0	-5.6	-54.9	-10.8	11.1
1980	-7.5	-12.7	-14.9	-6.9	-6.1	-2.2

TABLE 11 (cont'd)

Lean Years of Percentage Increase:

Year	DOT	FHA	FRA	UMTA	FAA	CG
1972	-62.0	32.3	203.6	-100.0	-42.0	6.4
1976	-62.0	-87.6	111.2	-89.8	4.9	12.1
1982	-24.1	727.8	-50.7	-28.6	-23.0	16.9
1968	-12.6	-36.2	-31.8	--	-11.4	1.2
1983	-9.1	28.9	-45.6	1.5	-7.7	-5.7

2. Analysis

The worst percentage loss for the Coast Guard came in the year that the Department achieved its second highest percentage gain. Two of the Coast Guard's five down years came in the "Abundant" years category.

Similarly, the Coast Guard's two best percentage gains (in 1976 and 1982) occurred when the Department suffered some of its highest cuts.

The level of the Department of Transportation funding depends mostly on the FRA, FHA and UMTA budget levels. As the Department experienced large increases, so did one or more of these agencies. Similarly, as DOT decreased in funding, one or more of these agencies also experienced large drops. For the most part, the FAA and CG do not appear to have that much an effect on overall Department funding. The FRA, FHA and UMTA budgets were described earlier in the chapter as behaving programmatically. From Table 11, the funding for the Department of Transportation can also be described as

programmatic as it heavily depends on these agencies' funding.

Consequently, a reasonable assessment of any effects the level of the Department budget has on the level of the Coast Guard budget cannot be made. The Coast Guard appears to get its minor increases/decreases in the budget regardless of the funding for the Department.

D. AGENCY PERCENTAGES

1. Data

Table 12 investigates how the agencies of the Department of Transportation behave in terms of their percentages of the total Department budget. The percentages of the five major agencies identified in this chapter do not add up to 100 percent. The five agencies will total to at least 85% of the annual budget to ensure the data are representative of the Department's budget. The budget years are again separated by the three categories; "Abundant" years, "Mediocre" years and "Lean" years. The table identifies the percentages of the agencies as they pertain to the respective years.

TABLE 12

AGENCY BUDGET SHARE OF ANNUAL DOT BUDGETS

Abundant Years of Overall Budget Increase:

Year	DOT(\$)*	FHA(%)	FRA(%)	UMTA(%)	FAA(%)	CG(%)
1971	4349	1.5	1.3	57.9	28.5	12.5
1974	3770	1.0	3.9	54.9	23.7	14.4
1975	7507	2.7	4.0	72.4	12.0	7.7
1981	4771	0.3	28.7	35.9	14.4	15.7
1979	3457	1.6	21.5	31.5	23.7	20.6
Average %		1.4	11.9	50.5	20.5	14.2

*in millions, constant 1967 dollars

Mediocre Years of Overall Budget Increase/Decrease

Year	DOT(\$)	FHA(%)	FRA(%)	UMTA(%)	FAA(%)	CG(%)
1967	1825	16.7	1.2	0.0	54.3	27.4
1970	1953	2.6	0.7	7.8	53.0	25.7
1984	3643	0.3	20.2	26.6	23.3	24.4
1973	1745	1.3	5.0	0.0	54.5	35.3
1969	1656	10.0	1.0	9.2	49.6	29.9
1978	2752	4.3	27.7	9.0	31.0	26.5
1977	2663	7.7	22.6	9.4	31.7	27.1
1980	3197	1.5	19.8	31.7	24.1	21.8
Average %		5.6	12.3	11.7	40.2	27.3

Lean Years of Overall Budget Increase/Decrease

Year	DOT(\$)	FHA(%)	FRA(%)	UMTA(%)	FAA(%)	CG(%)
1972	1651	5.2	10.3	0.0	43.4	35.1
1976	2854	1.0	22.4	19.5	33.1	22.8
1982	3623	4.1	18.6	33.7	14.7	24.1
1968	1595	12.2	1.0	0.0	55.1	31.7
1983	3295	5.8	11.1	37.6	14.9	25.0
Average %		5.7	12.7	18.2	32.2	27.7

2. Analysis

The Coast Guard's lowest average percentage of the Department of Transportation's budget came in the "Abundant"

years category. It experienced its highest average percentage in the "Mediocre" years category.

The large funding increases in the UMTA is evident in the "Abundant" years category as the UMTA budget was on average, over 50% of the Department's budget. In the "Lean" years, the UMTA held only an average of 18% of the overall budget. The UMTA's influence on the Department's funding in the "Abundant" years is further supported by the fact that every agency other than UMTA experienced its lowest average percentage in the "Abundant" years category.

Table 12 supports the idea that the Coast Guard budget remains relatively steady, not losing much ground, but not gaining much either. Even though the Coast Guard is low in the "Abundant" years, the average percentages are fairly close in the other two categories. This fact is especially significant when viewed in terms of how much Coast Guard responsibilities increased during the period. While the service's duties have increased, the annual Coast Guard funding increases do not necessarily reflect this fact. What repercussions this trend has on the service's future ability to perform its duties remains to be seen.

E. CONCLUSION

From the evidence gathered in this chapter, it appears that the Coast Guard budget is the only major agency budget

in the Department of Transportation that acts incrementally. The Coast Guard budget experienced steady growth throughout the period whereas the other agencies' budgets grew erratically. In fact, the Coast Guard budget seems to have little to do with the amount of funding received by the Department.

On the other hand, the Department and all of the other agency budgets indicate programmatic budget behavior. Early in the period, their budgets showed large funding increases, probably specified for certain projects. These increases were not re-funded from year to year, creating the wide fluctuations in the budgets. These results are in sharp contrast to the findings in Chapter IV where the Treasury Department and all its major agencies indicated incremental budget behavior.

VI. COAST GUARD CONGRESSIONAL TESTIMONY 1968-1984

In this chapter, the Coast Guard budget hearings before Congress during the period 1968-1984 are reviewed. Budget hearings can provide a wealth of information about an agency's budget process. This chapter will concentrate on the relationship between the Coast Guard and Congress in the budget process, the strategies the service employed in playing the budget game and the themes the service stressed when making its funding requests. Only the budget hearings before the House and Senate Department of Transportation Appropriation committees were studied. This analysis will give us another perspective on how the service budget has fared over the years.

A. COAST GUARD RELATIONSHIP WITH CONGRESS

Surprisingly, a noticeable change in the relationship between the Coast Guard and the Appropriation Committees occurred during the period 1968-1984. In 1968, the Coast Guard was one of the few established agencies transferred into the new Department of Transportation. The good relationship between Congress and the Treasury Department noted in Chapter 4 apparently carried over with the Coast Guard when it entered the Department of Transportation. Public praise of government agencies from Congressional Appropriation Committees does not occur often. Yet, in the

late sixties, such praise was often lavished upon the Coast Guard by both the House and Senate Appropriation Committees. For example, in the 1968 Appropriation Committee hearings, Senator Boland, Chairman of the House subcommittee on the Department of Transportation Appropriations stated:

"I think it is generally felt among those who have sat on the subcommittee that deals with Coast Guard appropriations that the U.S. Coast Guard perhaps gets as much for the dollar as any agency of the Government. For that, of course, the Coast Guard is to be congratulated." [Ref. 23]

In addition, Senator Stennis, Chairman of the Senate subcommittee on the Department of Transportation Appropriations stated:

"They [the Coast Guard] have taught me a good deal. I am mighty well pleased and impressed, too, with the program. It seems to me that they get a whole lot for the dollar. They know how to spend a dollar to get results." [Ref. 24]

Such praise for the Coast Guard was common in the early years of the Department. Yet, similar accolades occurred less frequently as the annual budget hearings progressed towards 1984.

A partial explanation for this fact is that the Coast Guard, an established agency, was a major part of a new Department of Transportation. Everyone including Congress was anxious to get the new Department off to a good start. Yet, as time went on, the members of the Appropriations Committee began to change. The newness of the Department wore off. The Department's budget hearings became the routine exchanges that were experienced by other agencies.

Consequently, the excitement surrounding the establishment of the Department of Transportation was a primary cause for the supportive remarks from Congress.

Another reason for the encouraging remarks was the Coast Guard's role in Vietnam. When the Department was established, the Vietnam conflict was reaching its peak. In the late sixties, the war was not as unpopular as it was in the early seventies. The Coast Guard was making a major contribution in Vietnam, and Congress approved of that contribution. Undoubtedly, the Vietnam conflict and the Coast Guard's efforts there created some of the good relations with Congress.

Another possible explanation was the environment surrounding the government's budget process in the late sixties. The Appropriations committees were not faced with high budget deficits as they are today. Allocation of funds was done without much concern for overall government spending levels. Spending money through the Coast Guard and helping the Vietnam effort combined to be a positive factor in the healthy relationship that existed between the service and Congress during the late sixties.

Yet, since the late sixties, the frequency of praises and accolades for the service has noticeably diminished. In recent budget hearings, the Coast Guard has not been cited for doing outstanding work as it often had been in the past. Senators begin the budget hearings with the funding requests

and the fanfare over service abilities and importance is largely absent. Several factors help explain this decline.

The major factor is the mounting budget deficit.

Congress was and still is being pressured to hold down government spending. The Appropriation committees became more suspect of agency budget requests. They spent more time reviewing the requests instead of acknowledging the efforts and the accomplishments of the service. Such an attitude is best portrayed by Senator Duncan in the House Appropriation hearings in 1981 when he stated:

"We have been fairly generous with the Coast Guard on the assumption, which I think is valid, that they are a good outfit and provide a lot of value for the money." [Ref. 25]

Also, Senator Andrews, the Chairman of the Senate subcommittee on Appropriations, said on the first day of the 1983 budget hearings:

"I might start out by noting that we find it disturbing, given the language in both the House and Senate reports outlining the need for a strong Coast Guard and the obvious support Congress has shown in the past in giving the largest increase of any Transportation agency to the Coast Guard in this budget just passed last December, that such a large number of reductions and closures would be made across the country without prior consultation with those of us on the committee" [Ref. 26]

Such comments indicate a more suspicious, less friendly atmosphere between the Appropriations Committees and the Coast Guard.

Another major factor in the decline in the relationship with Congress is the explosive growth of duties placed on the Coast Guard through the 1970's. Such growth took its

toll on the service's image with Congress. The service could no longer concentrate on the areas where it performed best, search and rescue and aids to navigation. The Coast Guard was placed with the additional responsibilities of such tasks as law enforcement and pollution control duties. With these new responsibilities, the service had to learn new tasks and become experts in these areas. The service's effectiveness and efficiency suffered. The Coast Guard readily admitted this problem during the budget hearings. In 1980, the Commandant, Admiral Hayes, stated to the Appropriation Committees:

"In reaction to a number of mandates over the past ten years, it has been necessary to reprogram dollars and people from one area to others of higher priority. I feel our resources are now assigned to those mission areas of highest importance. We are not accomplishing one hundred percent of all the missions assigned." [Ref. 27]

Additionally, the Commandant said:

"I do feel, however, that the service is as lean as it can possibly be. And, indeed, as lean as I have seen it during my entire career. I think we have been stretched to the limit." [Ref. 28]

To further illustrate, Senator Duncan of the committee stated in the same hearings:

". . . What you [the Commandant] are telling me is that you are going to try to make do with the budget submitted, but it really is not responsive to the shortages that you mentioned." [Ref. 29]

Despite the comments above, the current relationship between Congress and the Coast Guard can still be described as good. The Congress still sees the service as a valuable

asset and holds no animosity towards it the way it does some agencies. Yet, the relationship is not as good as it once was. Furthermore, the government budget game is different now than it was in the late sixties. Congress has placed itself and the Coast Guard in a difficult position. Congress has repeatedly asked the service to perform more duties e.g. pollution control, merchant marine inspections, and increased law enforcement duties. Yet it has not been willing to fund the monies necessary to perform those duties adequately. This situation cannot help but lead to a more strained relationship between the service and Congress.

B. FUNDING STRATEGIES

As stated in Chapter I, strategy can play an important role in determining how much funding an agency receives in a particular year. Reviewing testimony before the Senate and House Appropriations committees indicates various strategies the service used to obtain the requested funding.

In recent years, the Coast Guard has consistently used the strategy of asking for large increases in annual funding, expecting to receive large cuts, yet seeing the resulting budgets grow significantly. Table 13 gives a good indication of how well the Coast Guard has used this strategy.

TABLE 13

Year	COAST GUARD BUDGET REQUESTS (in billions)			
	CG	DOT	OMB	CONGRESS.
FY80	N/A	1.68	1.64	1.72
FY81	2.4	2.0	1.84	2.03
FY83	2.8	2.3	1.94	2.46

As evident from Table 13, the Coast Guard was not shy in asking for funds from the Department of Transportation. The Department pared down the request which was further reduced by the Office of Management and Budget. Thus, the final appeal for funding to the Appropriations committees in Congress was generally much less than initially asked for. Yet, with this strategy, the Coast Guard still grew at an average rate of 246 million dollars a year during the period 1980-1983. Further, the final Coast Guard appropriation from Congress was greater than the budget recommended by both the Department of Transportation and OMB in each of these three years.

Another strategy used by the Coast Guard was presenting the annual budget in line with the current Administration's desires for growth in the public sector. This strategy is intended to convey the service as a "team player". This hopefully leads to favorable consideration of the budget request. This strategy works well so long as the requested funding is what the service needs. The Coast Guard heavily

emphasized the "team player" approach in the late seventies. However, this strategy failed to result in the necessary funding for the service to do its job. In fact, the service was chastised for this approach. In the 1980 budget hearings, Senator Bayh stated:

" . . . the Coast Guard is the one service I come into contact with which, if I had to make an assessment on occasion, asked too little and never asked too much. I think it is fine for not asking too much, but I wish there were a way on some occasions to get the Coast Guard more aggressive in advocating additional funds to do the job, which it now does quite well." [Ref. 30]

Perhaps some of today's budget problems are coming into focus, because of the service's failure to adequately request and justify its real funding needs during this period.

Only recently has the service become vociferous about not having enough money to do the jobs it has been detailed to do. In 1983, the service devised a new style of presenting their budget to Congress. The service identified three levels of funding to the committee: levels A, B and C. Level A was the "enhanced" budget. The "enhanced" budget is the amount of funding necessary for the Coast Guard to improve its services. Level B was the funding level needed to keep the same output of services the Coast Guard produced in the previous year. Level C funding indicated a point where output of services would deteriorate. Identifying such levels was not productive for the service. Perhaps by coincidence, in the same hearings a major complaint from a

committee member surfaced concerning the Coast Guard budget process. In this complaint, the Congressman wanted to know why the Coast Guard was requesting the purchase of additional aircraft when the budget did not simultaneously request the funds necessary to fly those airplanes. Fast shuffling by the service reduced the damage of this testimony, but this episode points out the volatile relationship between Congress and the Coast Guard. The different levels of funding described earlier were not used in the next two years of budget hearings.

A more successful strategy used by the service was its ability to accent the current political environment in its budget requests. The Coast Guard was adept at ensuring that whatever was popular on Capitol Hill at the time somehow made it into its budget requests. In the late sixties, budget requests centered around the Vietnam war and how the service was diverting funds for the war effort often at the expense of other programs. In the mid-seventies when pollution control, marine environment protection and recreational boating safety became popular terms in Congress, the service tailored its budget request to meet the responsibilities created by these new interests. In the late seventies when drug enforcement became a hot political topic, again the Coast Guard argued for additional funds for such duties. This type of strategy is found in most government agencies. If an agency does not keep up with its

external environment and exploit the favorable environments to extend its funding base, it is likely to fail in the budgetary process.

Another common strategy employed with success by the service is the strategy of cutting popular programs when faced with budget cuts. Cutting the popular programs creates a public outcry that often forces Congress to reinstate the funds. This strategy was used with success in 1982 and even more recently in October 1985.

In 1982, the service was faced with budget reductions and the service threatened to close all of its shore stations on the Great Lakes. Public outcry resulted and the Congressmen from the Great Lakes districts stepped in. Funding was approved via a supplemental appropriation and the stations remained open. The supplemental appropriation was annualized during the next budget year and the Coast Guard funding base expanded.

In October, 1985, as Congress struggled to submit the FY86 budget, the Senate slated the Coast Guard for a 200 million dollar decrease in funds. This reduction came after the House had already approved the service's budget with the 200 million dollars intact. Again, public concern about the cuts sprang up. The Coast Guard assisted the outcry by claiming that the 200 million dollar reduction would seriously affect the service's ability to fight drug smuggling and perform search and rescue missions. The cuts

would mean 6,000 military and civilian positions would have to be cut. Forty cutters would be mothballed. Twelve search and rescue stations would be closed and forty-five aircraft would be grounded. [Ref. 31] Soon after the cuts were announced, the House approved a 100 million rider to the FY86 Defense Appropriation bill to restore some of the funds. [Ref. 32] This issue is yet to be resolved, but it is an excellent example of how public support of government programs can assist in obtaining necessary funding for an agency.

While this particular strategy benefitted the Coast Guard, its success is somewhat tempered when it is taken in context with the entire government budget process. Reinstatement of funds for the Coast Guard means less dollars for another government program, because the supply of dollars is not infinite. Thus, what is good for the Coast Guard may not necessarily be good for another government agency.

C. THEMES UNDERLYING BUDGET REQUESTS

The basic theme underlying all Congressional testimony on the annual Coast Guard budgets is the theme of national security. The Coast Guard prides itself as being the prime protector of the nation's coasts. The Coast Guard sees its annual funding as an investment in our national security. The flavor of the testimony can be described as "What is

good for the Coast Guard is good for the country." Further, the service is in an unique position on this theme. If the mood of the country is against defense and military spending (as was the case after Vietnam), the service's budget is protected by the theme of the importance of its normal peace-time operations of search and rescue and aids to navigation. Themes such as national security and helping others in time of distress are powerful tools in the budget game and a review of the testimony from 1968-1984 indicated the service's willingness to exploit these themes.

D. CONCLUSION

Achieving success in the budget process is a difficult, complex task. The process involves several factors that must be considered before adopting a theme and a strategy for the budget request. The factors are different for each year's request. The Coast Guard has had its successes and failures in the budget process during the period 1968-1984. Yet, hopefully the service has learned from each hearing and is better prepared to deal with next year's request.

Generally, the service plays the budget game well as evidenced by the growth of its funding base. Most of the strategies identified in this chapter were used effectively. Any one criticism resulting from the research in this chapter would be the Coast Guard's failure to be aggressive in its budget requests. Evidence from recent years

indicates that the Coast Guard may finally be getting more assertive about its funding needs. Yet, how this new found assertiveness will compete against the shrinking pool of available government dollars remains to be seen.

VII. DISCUSSION AND CONCLUSION

A. DISCUSSION

Perhaps the best comment on the Coast Guard budget over the past twenty years was penned by Malcolm S. Forbes, a leading American financier who in 1981 editorialized:

"It seems to me we don't seem to be aware of how very much the U.S. Coast Guard accomplishes, and how very varied these accomplishments are. We are aware of their vigilant, often heroic lifesavings at sea disasters, but less aware of the magnitude of their responsibilities in preventing drug smuggling, illegal oil spills, protecting American fishing rights and fishermen, enforcing boat and ship safety rules and regulations, maintaining our multiple first-rate sea signs-bouys, beacons, signals-and a host of other essentials. To be on the oceans and near shores of lands beyond our own makes one keenly aware of how good and how important this Service is-almost to the same degree that one appreciates the U.S. telephone system when using any other anywhere else. You'd think with all they have to do and with their deservedly splendid reputation, our Coast Guardians would have gear and boats and ships and stuff enough. But since the U.S. Coast Guard was taken away from the Treasury Department, it has been shortchanged on pay, training, recruitment, and hardware to an extent that is alarming and inexcusable. I think Ronald Reagan's the sort who'll see that the Government begins again to do right by the U.S Coast Guard." [Ref. 33]

The Coast Guard's steady budget growth since 1949 is impressive. Despite the comment above, the Coast Guard's budget (in terms of then year and constant dollars) still grew under the Department of Transportation. Yet, if one takes the roles and missions assigned to the service since being transferred into the Department of Transportation, a different story emerges.

Perhaps with the extra duties assigned, the funding did not keep up with the service's responsibilities. As seen in the last chapter, some of the budget strategies employed by the service during the seventies did not improve the situation. Congress cannot be held solely responsible for the mismatch of funding and responsibilities. The Coast Guard did not always maximize its budget opportunities. Yet, the Coast Guard certainly has learned that budget strategies such as cutting popular programs and initially asking for large funding increases can help to expand its funding base.

Research in earlier chapters indicated incremental budget behavior for the service. This behavior occurred regardless of whether the budget behavior of the Department was incremental or programmatic. Because the Coast Guard's funding base seems well established, its funding levels are not significantly impacted by the amount of funding at the Department level.

Evidence also showed that even though the Coast Guard's overall budget exhibited incremental budget behavior, the major programs that make up the Coast Guard budget do not necessarily exhibit incremental behavior. In fact, the Coast Guard often shifted funds between programs to stress the areas receiving the most political attention at the time [Ref. 34].

B. CONCLUSION

With evidence strongly suggesting that the Coast Guard budget has acted incrementally over the past 35 years regardless of the budget behavior of the senior Department, we can conclude that the Coast Guard budget is fairly predictable from year to year. Research in Chapter II indicates the Operating Expense program within the Coast Guard budget has established its funding base and will get its funds from year to year. Any excesses/shortages in the annual budget usually are resolved through the Acquisition, Construction and Improvements program. These findings are similar to findings resulting from similar research on U.S. Navy programs [Ref. 35].

Although the Coast Guard budget may be fairly predictable from year to year, the budget process to obtain those funds is highly volatile. For the most part, the Coast Guard has played the budget game well. From the research in Chapter VI, the Coast Guard appears to learn from its mistakes and to exploit successful strategies whenever possible. Such learning will continue to be necessary as the budget deficits mount and competition for government dollars increase. Yet, the Coast Guard roles and missions are viewed as vital to the security of the country and its funding base should remain intact for the foreseeable future.

C. AREAS FOR FURTHER RESEARCH

The one area that would be beneficial to the service as well as an excellent learning tool would be a more in-depth analysis of the Coast Guard budget hearings from 1968-1984. Due to time restraints, only a cursory examination was done in this paper. A more comprehensive study examining not only the testimony, but also any correspondence at Coast Guard Headquarters concerning the formulation of budget strategy would be excellent material for a future thesis topic.

APPENDIX A

ANNUAL BUDGETS FOR CG AND ITS MAJOR GENERAL FUNDS (In then year dollars and in millions) (1967-1984)

Year	CG	OE	AC&I	R&D	RT
1967	500	326	105	-	24
1968	527	347	107	-	24
1969	544	371	90	4	26
1970	584	416	68	15	27
1971	661	446	94	10	26
1972	727	503	98	15	28
1973	820	548	132	18	31
1974	802	584	76	14	27
1975	933	660	108	17	29
1976	1106	738	166	19	32
1977	1308	838	236	19	36
1978	1424	924	256	20	39
1979	1547	988	283	20	41
1980	1718	1115	286	22	43
1981	2034	1337	334	25	49
1982	2525	1482	684	18	51
1983	2455	1604	400	20	54
1984	2767	1691	669	23	55

Legend: CG-Coast Guard
OE-Operating Expense
AC&I-Acquisition, Construction and
Installation
R&D-Research and Development
RT-Reserve Training

APPENDIX B

ANNUAL CHANGES FOR CG AND ITS MAJOR GENERAL FUNDS (In then year dollars and in millions)

Year	CG	OE	AC&I	R&D	RT
1968	27	21	2	-	0
1969	17	24	-17	-	2
1970	40	45	-22	11	1
1971	77	30	26	-5	-1
1972	66	57	4	5	2
1973	93	45	34	3	3
1974	-18	36	-56	-4	-4
1975	131	76	32	3	2
1976	173	78	58	2	3
1977	202	100	70	0	4
1978	116	86	20	1	3
1979	123	64	27	0	2
1980	171	127	3	2	2
1981	316	222	48	3	6
1982	491	145	350	-7	2
1983	-70	122	-284	2	3
1984	312	87	269	3	1
Average	133	80	33	1	2
Median	116	76	26	2	2

APPENDIX C

ANNUAL BUDGETS FOR CG AND ITS MAJOR GENERAL FUNDS
(In constant dollars and in millions)
(1967=100)

Year	GNP Deflator	CG	OE	AC&I	R&D	RT
1967	100.0	500	326	105	-	24
1968	104.2	506	333	103	-	23
1969	109.8	495	338	82	4	24
1970	116.3	502	358	58	13	23
1971	121.3	545	368	77	8	21
1972	125.3	580	401	78	12	22
1973	133.1	616	412	99	14	23
1974	147.7	543	395	51	9	13
1975	161.2	579	409	67	11	13
1976	170.5	649	433	97	11	19
1977	181.5	721	462	130	10	20
1978	195.4	729	473	131	10	20
1979	217.4	712	455	130	9	19
1980	246.3	696	452	116	9	17
1981	272.4	747	491	123	9	18
1982	289.1	873	513	237	6	13
1983	293.4	823	538	134	7	13
1984	311.1	889	544	215	7	13

APPENDIX D

ANNUAL CONSTANT DOLLAR CHANGES FOR CG
AND ITS MAJOR GENERAL FUNDS
(In millions; 1967=100)

Year	CG	OE	AC&I	R&D	RT
1968	6	7	-2	-	-1
1969	-11	5	-21	-	1
1970	7	20	-24	9	-1
1971	43	10	19	-5	-2
1972	35	33	1	4	1
1973	36	11	21	2	1
1974	-73	-17	-48	-5	-5
1975	36	14	16	2	0
1976	70	24	30	0	1
1977	72	29	33	-1	1
1978	8	11	1	0	0
1979	-17	-18	-1	-1	-1
1980	-16	-3	-14	0	-2
1981	51	39	7	0	1
1982	126	22	114	-3	0
1983	-50	25	-103	1	0
1984	66	6	81	0	0
Average	23	13	6	0	0
Median	35	11	1	0	0

APPENDIX E

ANNUAL BUDGETS FOR THE DEPARTMENT OF TREASURY (In then year dollars and in millions) (1949-1966)

Year	Treasury	Pub. Debt	Customs	CG	IRS
1949	6116	5300	53	141	211
1950	6353	5722	36	153	232
1951	6349	5615	37	195	243
1952	6616	5853	41	226	273
1953	7273	6503	41	244	270
1954	7134	6382	41	220	270
1955	7137	6370	41	183	279
1956	7715	6787	44	195	300
1957	8060	7244	44	204	306
1958	8480	7607	50	224	338
1959	13023*	7593	53	241	356
1960	10369	9180	54	258	364
1961	9977	8957	60	281	414
1962	10204	9120	63	293	451
1963	11046	9895	68	305	502
1964	11957	10666	73	365	550
1965	12802	11346	78	417	598
1966	13102	12013	84	473	629

Legend: Treasury-Department of Treasury
Public Debt-Bureau of the Public Debt
Customs-Bureau of Customs
CG-Coast Guard
IRS-Internal Revenue Service

*Includes one time payment of 4.6 billion to the IMF.

APPENDIX F

ANNUAL THEN YEAR DOLLAR CHANGES IN THE TREASURY DEPARTMENT (in millions)

Year	Treasury	Pub. Debt	Customs	CG	IRS
1950	237	422	-17	12	21
1951	-4	-107	1	42	16
1952	267	238	4	31	25
1953	662	650	0	18	-3
1954	-144	-121	0	-24	0
1955	3	-12	0	-37	9
1956	578	417	3	12	21
1957	345	457	0	9	6
1958	420	363	6	20	32
1959	4543	-14	3	17	18
1960	-2654	1587	1	17	8
1961	-392	-223	6	23	50
1962	227	163	3	17	37
1963	842	775	5	7	51
1964	911	771	5	60	48
1965	845	680	5	52	48
1966	300	667	6	56	31
Average	411	395	2	20	25
Median	300	417	3	17	21

APPENDIX G

ANNUAL CONSTANT DOLLAR BUDGETS FOR DEPARTMENT OF TREASURY (in millions and 1967=100)

Year	GNP Deflator	Treasury	Pub.Debt	Customs	CG	IRS
1949	71.4	8566	7423	74	197	296
1950	72.1	8811	7936	50	212	322
1951	77.8	8161	7217	48	251	319
1952	79.5	8322	7362	52	284	343
1953	80.1	9086	8119	51	305	337
1954	80.5	8862	7928	51	273	335
1955	80.2	8899	7943	51	228	348
1956	81.4	9478	8338	54	240	369
1957	84.3	9561	8593	52	242	363
1958	86.6	9792	8784	58	259	390
1959	87.3	14918	8698	61	276	408
1960	88.7	11690	10349	61	291	410
1961	89.6	11135	9997	67	314	462
1962	90.6	11263	10066	70	329	498
1963	91.7	12046	10791	74	333	547
1964	92.9	12871	11481	79	393	592
1965	94.5	13547	12006	83	441	633
1966	97.2	13479	12359	86	487	647

APPENDIX H

ANNUAL CONSTANT DOLLAR CHANGES IN TREASURY DEPARTMENT (In millions; 1967=100)

Year	Treasury	Pub.Debt	Customs	CG	IRS
1950	245	513	-24	15	26
1951	-650	-719	-2	39	-3
1952	161	145	4	33	24
1953	764	757	-1	21	-6
1954	-224	-191	0	-32	-2
1955	37	15	0	-45	13
1956	579	395	3	12	21
1957	83	255	-2	2	-6
1958	231	191	6	17	27
1959	5126	-86	3	17	18
1960	-3228	1651	0	15	2
1961	-555	-352	6	23	52
1962	128	69	3	15	36
1963	783	725	4	4	49
1964	825	690	5	60	45
1965	676	525	4	48	41
1966	-68	353	3	46	14
Average	289	290	1	17	21
Median	161	255	3	17	21

APPENDIX I

ANNUAL DEPARTMENT OF TRANSPORTATION BUDGETS (In then year dollars and in millions) (1967-1984)

Year	DOT	FHA	FRA	UMTA	FAA	CG
1966	1479	113	-	-	866	473
1967	1825	304	22	-	991	500
1968	1662	202	16	-	915	527
1969	1818	181	19	168	901	544
1970	2271	58	17	177	1203	584
1971	5275	79	68	3051	1501	661
1972	2069	108	213	-	899	727
1973	2323	30	117	-	1267	820
1974	5568	55	218	3056	1321	802
1975	12101	325	487	8766	1453	933
1976	4866	42	1088	950	1612	1106
1977	4833	370	1092	455	1530	1308
1978	5377	229	1491	484	1665	1424
1979	7515	119	1616	2365	1781	1547
1980	7891	119	1561	2500	1899	1718
1981	12996	48	3731	4662	1882	2034
1982	10473	432	1951	3532	1538	2525
1983	9831	573	1095	3699	1466	2455
1984	11333	29	2285	3018	2644	2767

Legend: DOT-Department of Transportation
FHA-Federal Highway Administration
FRA-Federal Railroad Administration
UMTA-Urban Mass Transit Authority
FAA-Federal Aviation Authority
CG-Coast Guard

APPENDIX J

ANNUAL THEN YEAR DOLLAR CHANGES IN DOT BUDGETS (in millions)

Year	DOT	FHA	FRA	UMTA	FAA	CG
1967	346	191	-	-	125	27
1968	-163	-102	-6	-	-76	27
1969	156	-21	3	-	-14	17
1970	453	-123	-2	9	302	40
1971	3004	21	51	2874	298	77
1972	-3206	29	145	-3051	-602	66
1973	254	-78	-96	-	368	93
1974	3245	25	101	-	54	-18
1975	6533	270	269	5710	132	131
1976	-7235	-283	601	-7816	159	173
1977	-33	328	4	-495	-82	202
1978	544	-141	399	29	135	116
1979	2138	-110	125	1881	116	123
1980	376	0	-55	135	118	171
1981	5105	-71	2170	2162	-17	316
1982	-2523	384	-1780	-1130	-344	491
1983	-642	141	-856	167	-72	-70
1984	1502	-544	1190	-681	1178	312
Average	549	-5	133	-16	99	127
Median	361	-11	51	29	117	105

APPENDIX K

ANNUAL DOT BUDGETS IN CONSTANT DOLLARS
(1967=100)

Year	GNP DEFLATOR	DOT	FHA	FRA	UMTA	FAA	CG
1966	97.2	1521	116	-	-	891	487
1967	100.0	1825	304	22	-	991	500
1968	104.2	1595	194	15	-	878	506
1969	109.8	1656	165	17	153	821	495
1970	116.3	1953	50	15	152	1034	502
1971	121.3	4349	65	56	2515	1237	545
1972	125.3	1651	86	170	-	717	580
1973	133.1	1745	23	88	-	952	616
1974	147.7	3770	37	148	2069	894	543
1975	161.2	7507	202	302	5438	901	579
1976	170.5	2854	25	638	557	945	649
1977	181.5	2663	204	602	251	843	721
1978	195.4	2752	117	763	248	852	729
1979	217.4	3457	55	743	1088	819	712
1980	246.8	3197	48	632	1013	769	696
1981	272.4	4771	18	1370	1711	691	747
1982	289.1	3623	149	675	1222	532	873
1983	298.4	3295	192	367	1240	491	823
1984	311.1	3643	9	734	970	850	889

APPENDIX L

ANNUAL CONSTANT DOLLAR CHANGES IN TRANSPORTATION DEPARTMENT (In millions; 1967=100)

Year	DOT	FHA	FRA	UMTA	FAA	CG
1967	304	188	-	-	100	13
1968	-230	-110	-7	-	-113	6
1969	61	-29	2	-	-57	-11
1970	297	-115	-2	-1	213	7
1971	2396	15	41	2363	203	43
1972	-2698	21	114	-2515	-520	35
1973	94	-63	-82	-	235	36
1974	2025	14	60	-	-58	-73
1975	3737	165	154	3369	7	36
1976	-4653	-177	336	-4881	44	70
1977	-191	179	-36	-306	-102	72
1978	89	-87	161	-3	9	8
1979	705	-62	-20	840	-33	-17
1980	-260	-7	-111	-75	-50	-16
1981	1574	-30	738	698	-78	51
1982	-1148	131	-695	-489	-159	126
1983	-328	43	-308	18	-41	-50
1984	348	-183	367	-270	359	66
Average	118	14	42	-96	-2	22
Median	92	4	2	-3	-37	24

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